

## WHAT IS CLAIMED IS:

1. A method of simulating packet traffic in a packet-switched network, comprising the steps of:

- (a) collecting a plurality of traffic logs from the network, the traffic logs being representative of traffic flowing in the network;
- (b) indexing the traffic logs by at least time of creation;
- (c) modifying a map of the topology of the network to create a proposed topology; and
- (d) generating a histogram file by replaying the traffic logs through the proposed topology.

2. The method of claim 1, wherein the histogram file is a flat file, whereby direct and rapid access to stored data is effected.

3. The method of claim 1, wherein two histogram files are created, a first histogram being representative of traffic being passed into the network and a second histogram being representative of the traffic being passed from the network.

4. The method of claim 1, wherein the histogram file is representative of traffic being passed to a host connected to an entry or exit point.

5. The method of claim 1, further comprising analyzing the traffic logs to determine state information of packets associated with the traffic logs, and updating the histogram file with the state information.

6. The method of claim 1, wherein the histogram file plots packets per minute versus time.

5 7. The method of claim 1, further comprising broadcasting from a server computer data representative of the histogram file to a client computer.

8. The method of claim 1, wherein the network is a Mobitex network.

10 9. The method of claim 1, further comprising displaying a histogram based on data in the histogram file.

10 10. The method of claim 1, further comprising creating at least one histogram for each host of the network.

15 11. The method of claim 10, further comprising selecting for display the at least one histogram for a particular host.

20 12. A method of analyzing packet traffic in a packet-switched network, comprising the steps of:

(a) collecting a plurality of traffic logs from a network operations center, the traffic logs being representative of packet traffic passing through an actual configuration of the network,

wherein each traffic log includes the time the traffic log was created and an associated packet's network entry and exit points;

(b) storing the traffic logs in a computer such that the traffic logs can be replayed;

(c) creating a computer file representative of a modified network configuration that is  
5 different from the actual configuration of the network;

(d) replaying the traffic logs in coordination with the modified network configuration;

and

(e) generating a histogram file representative of packet traffic passing through or via at  
least one of a host, node and link in the modified network configuration.

10 13. The method of claim 12, wherein the histogram file is a flat file.

14. The method of claim 12, wherein the network is a Mobitex network.

15 15. The method of claim 12, wherein the traffic logs represent traffic in the network over  
at least a 24 hour period.

16. The method of claim 12, wherein the histogram plots packets per minute versus time.

20 17. The method of claim 12, further comprising broadcasting, from a server computer,  
data representative of the histogram to a client computer.

18. The method of claim 12, further comprising displaying a histogram based on data in the histogram file.

19. The method of claim 12, further comprising creating at least one histogram for each  
5 node of the modified network.

20. The method of claim 12, further comprising selecting for display a histogram for a particular node.

21. A system for analyzing packet traffic in a packet-switched network, comprising:

(a) means for collecting a plurality of traffic logs from a network operations center, the traffic logs being representative of packet traffic passing through an actual configuration of the network, wherein each traffic log includes the time the traffic log was created and an associated packet's network entry and exit points; and

(b) a computer programmed to (i) store the traffic logs such that the traffic logs can be  
15 replayed, (ii) create a computer file representative of a modified network configuration that is different from the actual configuration of the network, (iii) replay the traffic logs in coordination with the modified network configuration, and (iv) generate a histogram file representative of  
20 packet traffic passing through or via at least one of a host, node and link in the modified network configuration.

22. The system of claim 21 wherein the histogram file is a flat file.

23. The system of claim 21, wherein the network is a Mobitex network.

24. The system of claim 21, wherein the traffic logs represent traffic in the network over at least a 24 hour period.

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25. The system of claim 21, wherein the histogram plots packets per minute versus time.

26. The system of claim 21, further comprising means for broadcasting, from a server computer, data representative of the histogram to a client computer.

27. The system of claim 21, further comprising means for displaying a histogram based on data in the histogram file.

28. The system of claim 21, further comprising means for creating at least one histogram for each node of the modified network.

29. The system of claim 21, further comprising means for selecting for display a histogram for a particular node.